

## AccuStar® IP-66 – 4 to 20mA Loop Powered Clinometer



- $\pm 3^\circ$  to  $\pm 45^\circ$  sensing ranges
- IP-66 rated
- 4 to 20mA and analog outputs
- Zero and span adjustable
- $-25^\circ$  to  $+60^\circ\text{C}$  temp range
- Rugged die-cast housing



### DESCRIPTION

The **AccuStar® IP-66** is a 4 to 20mA loop powered clinometer specifically designed for industrial and outdoor applications. Rated to IP-66, the rugged die-cast, powder coated aluminum housing provides protection in the most hostile environments.

The heart of the system is our patented, capacitance-based tilt sensor with no moving parts. When rotated about its sensitive axis, this unique sensor provides an exceedingly linear variation in capacitance, which is then electronically converted into 4 to 20mA and VDC analog outputs proportional to the angular position.

The AccuStar® IP-66 may be operated as either a 2-wire loop powered angle transmitter, or a 4-wire analog output tilt sensor. Mounting features integrated into the die cast housing, make installation onto any vertical surface easy.

Also see our other models, **AccuStar® Electronic Clinometer** (4 standard input/output configurations), **AngleStar® Protractor System** (AccuStar® with digital readout) and **AngleStar® DP-45** (handheld digital protractor).

Measurement Specialties, Inc. (NASDAQ MEAS) offers many other types of sensors. Data sheets can be downloaded from our web site at: <http://www.meas-spec.com/datasheets.aspx>

MEAS acquired Schaevitz Sensors and the **Schaevitz®** trademark in 2000.

### FEATURES

- Ranges from  $\pm 3^\circ$  to  $\pm 45^\circ$
- Rugged die-cast aluminum housing
- Dust and water tight to IP-66
- Current or voltage output
- 3m (10 ft.) long jacketed cable

### APPLICATIONS

- Crane safety systems
- Machine tool angle positioning
- Barge leveling and load distribution
- Medical vehicle leveling / mobile CT & MRI
- Mining equipment
- Solar array tracking systems

# AccuStar® IP-66 – 4 to 20mA Loop Powered Clinometer

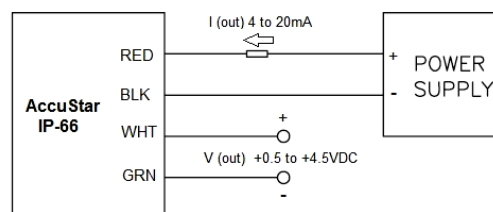
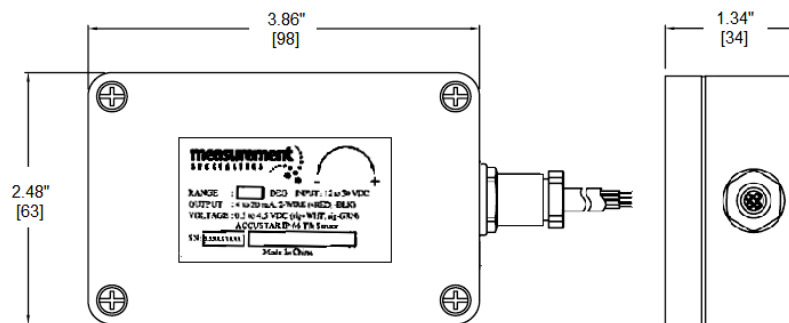
## PERFORMANCE SPECIFICATIONS

| ELECTRICAL                        |   |
|-----------------------------------|---|
| Linear range                      | $\pm 3^\circ$ to $\pm 45^\circ$   |
| Input voltage (unregulated)       | +12 to +30VDC (+18VDC min. required for 4 to 20mA operation)                              |
| Output*                           | 4 to 20mA or +0.5 to +4.5VDC (see note)   |
| Zero (level) output               | 12mA or +2.5VDC   |
| Max loop resistance               | 500 $\Omega$ at +24VDC  |
| Linearity                         |   |
| Null to 10 $^\circ$               | $\pm 0.1^\circ$   |
| 10 $^\circ$ to 45 $^\circ$        | $\pm 1\%$   |
| Null repeatability                | 0.05 $^\circ$   |
| Cross axis error                  | <1% up to 45 $^\circ$   |
| Frequency response                | 0.5Hz @ -3db  |
| ENVIRONMENTAL/MECHANICAL          |   |
| Operating temperature range       | -25 $^\circ$ to +60 $^\circ$ C  |
| Temp. coefficient of null         | 0.05 $^\circ$ / $^\circ$ C  |
| Temp. coefficient of scale factor | 0.1% / $^\circ$ C   |
| Cable                             | Shielded cable with FEP jacket, four conductors, stranded 22 AWG, 3m (10 foot) long min.. |

### Notes:

- \* Unit supplied with 4 to 20mA output calibrated. Use of the +0.5 to +4.5VDC output requires subsequent calibration!  
 All values are nominal unless otherwise noted!

## DIMENSIONS AND WIRING



Dimensions are in inches [mm]

# AccuStar® IP-66 – 4 to 20mA Loop Powered Clinometer

---

## ORDERING INFORMATION

---

| Model           | Measurement range | Part Number  |
|-----------------|-------------------|--------------|
| AccuStar® IP-66 | ±3°               | 72162000-003 |
|                 | ±5°               | 72162000-005 |
|                 | ±10°              | 72162000-010 |
|                 | ±15°              | 72162000-015 |
|                 | ±20°              | 72162000-020 |
|                 | ±30°              | 72162000-030 |
|                 | ±45°              | 72162000-045 |

## We are here for you. Addresses and Contacts.

---

### Headquarter Switzerland:

Angst+Pfister Sensors and Power AG  
Thurgauerstrasse 66  
CH-8050 Zurich  
Phone +41 44 877 35 00  
[sensorsandpower@angst-pfister.com](mailto:sensorsandpower@angst-pfister.com)

### Office Germany:

Angst+Pfister Sensors and Power Deutschland GmbH  
Edisonstraße 16  
D-85716 Unterschleißheim  
Phone +49 89 374 288 87 00  
[sensorsandpower.de@angst-pfister.com](mailto:sensorsandpower.de@angst-pfister.com)

---

Scan here and get an overview of personal contacts!



[sensorsandpower.angst-pfister.com](https://sensorsandpower.angst-pfister.com)

---